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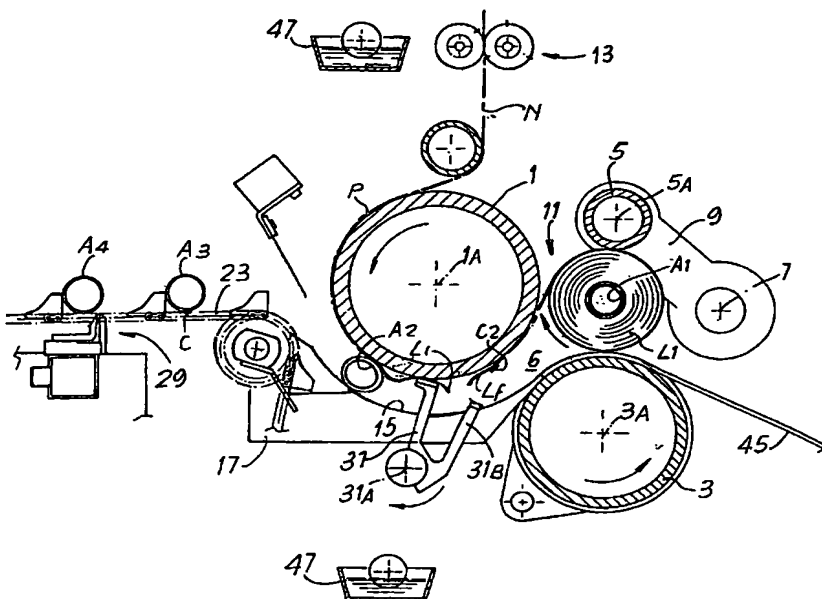
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[Continued on next page]

(54) Title: REWINDING MACHINE WITH GLUING DEVICE TO GLUE THE FINAL EDGE OF THE LOG FORMED AND RELATIVE WINDING METHOD



(57) Abstract: The rewinding machine comprises: winding elements (1, 3, 5) to wind the web material (N) and form the logs (L1, L2); at least a first glue dispenser (31B) to apply a first glue (C2) to a portion of said web material, in proximity to a severing line, along which the web material is severed upon termination of winding a log. The first glue dispenser comprises a mechanical element (31B) that touches the web material (N) upon termination of winding each log (L1, L2), to transfer the first glue to the web material (N).



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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INTERNATIONAL SEARCH REPORT

Patent Application No
PCT/IT 03/00748

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B65H19/29

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B65H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/64563 A (BETTI GIULIO ; MORELLI ROBERTO (IT); BENVENUTI ANGELO (IT); PERINI FAB) 7 September 2001 (2001-09-07)	1, 2, 4-8, 10, 11, 15-17, 26-29, 32-35
A	page 4, line 18 - line 30	3, 9, 12, 18, 22, 30, 31, 37, 38
Y	page 10, line 9 - page 11, line 2	13, 14
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

4 June 2004

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INTERNATIONAL SEARCH REPORT

 International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 532 573 A (HERMAN WALTER H) 6 October 1970 (1970-10-06)	1,3,5, 16,26, 27,29, 32,34,35
A	column 5, line 54 - column 7, line 15; figures	2,4,6-8, 11,14, 18,28, 30,31, 33,36-38
Y		13,14
X	US 3 030 042 A (DE GELLEKE GERRIT) 17 April 1962 (1962-04-17)	1,2,16, 26,27, 34,35
A	column 5, line 53 - line 62	3-6,8, 11,17, 18, 28-32, 36-38
	column 12, line 14 - line 29 figures 11,12	
Y	US 5 603 467 A (BIAGIOTTI GUGLIELMO ET AL) 18 February 1997 (1997-02-18) column 5, line 18 - line 27; figures 3,4	13,14
Y	US 5 979 818 A (BIAGIOTTI GUGLIELMO ET AL) 9 November 1999 (1999-11-09) column 6, line 22 - line 33; figures 2-5	13,14

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IT 03/00748

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
1-35, 37-45

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12,15-35,37-45

A rewinding machine for producing logs of wound web material, comprising

- winding elements to wind the web material and form said logs;
- means to sever the web material upon termination of winding each log;
- at least a first glue dispenser to apply a first glue to a portion of said web material, in proximity to a severing line, along which the web material is severed upon termination of winding a log to form a final free edge and an initial free edge, said first glue gluing the final free end of the log,

wherein said first glue dispenser comprises a mechanical element that touches the web material at the end of winding of each log, to transfer said first glue to said web material,

which rewinding machine comprises a second gluing unit to apply a second glue to said tubular winding cores,

wherein said mechanical element is associated with said feeder,

characterized in that said mechanical element is integral with said feeder,

and related method and apparatus.

2. claims: 1,13,14

A rewinding machine for producing logs of wound web material, comprising

- winding elements to wind the web material and form logs;
- means to sever the web material upon termination of winding each log;
- at least a first glue dispenser to apply a first glue to a portion of said web material, in proximity to a severing line, along which the web material is severed upon termination of winding a log to form a final free edge, said first glueing the final free edge of the log;

wherein said first glue dispenser comprises a mechanical element that touches the web at the end of winding of each log, to transfer said first glue to said web material,

wherein said means to sever the web material upon termination of each log comprise a rotating severing element, cooperating with said first winding element; and in that said mechanical element of the first glue dispenser is associated with said severing element,

characterized in that when said severing element is in contact with said web material it has a peripheral speed differing in respect of said first winding element.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

3. claims: 26,36

Method for producing logs of ound web material, comprising the phases of:

- winding a quantitiy of web material to form a first log in a winding area;
 - upon termination of winding said first log, severing the web material to create a final edge of the first log an an initial edge to from a second log;
 - applying a first glue to a portion of the web mateiral destined to remain wound on the first log, in proximity to the final free edge, which is glued to the first log upon termination of winding,
- wherin said first glue is applied to the web material by a mechanical element that comes into contact with said web material,
characterized in that said first glue is a non-liquid glue, such as a strip of double-sided adhesive tape.
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/IT 03/00748

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